DOCKET FILE COPY ORIGINAL

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Establishment of an Improved Model for	)	ET Docket No. 00-11
Predicting the Broadcast Television Field	)	
Strength Received at Individual Locations	)	

REPLY COMMENTS OF DIRECTV, INC.

Gary M. Epstein
James H. Barker
Kimberly S. Reindl
LATHAM & WATKINS
Latham & Watkins
1001 Pennsylvania Avenue, N.W.,
Suite 1300
Washington, D.C. 20004-2505
Phone: (202) 637-2200

March 14, 2000

TABLE OF CONTENTS

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Establishment of an Improved Model for Predicting the Broadcast Television Field Strength Received at Individual Locations	)	ET Docket No. 00-11

REPLY COMMENTS OF DIRECTV, INC.

DIRECTV, Inc. ("DIRECTV")[1] hereby submits the following reply comments in the above-captioned proceeding.

I. INTRODUCTION & SUMMARY

Section 339(c)(3) of the Satellite Home Viewer Improvement Act of 1999[2] ("SHVIA"), directs the Commission to establish a point-to-point predictive model for reliably and presumptively determining whether individual locations receive an over-the-air television broadcast signal of "Grade B" intensity. Section 339(c)(3) expressly mandates that the Commission revise its Individual Location Longley-Rice ("ILLR") model to take into account terrain, building structures and other land cover variations. The Commission has set out to fulfill this mandate by proposing modifications that are based on the best data currently available. This approach is appropriate and consistent with the 180-day deadline for the Commission's

---

1 DIRECTV is a wholly-owned subsidiary of DIRECTV Enterprises, Inc., a licensee in the DBS service and a wholly-owned subsidiary of Hughes Electronics Corporation.

2 Act of Nov. 29, 1999, Pub. L. No. 106-113, §1000(9), 113 Stat. 1501 (enacting S. 1948, including the Satellite Home Viewer Improvement Act of 1999, Title I of the Intellectual Property and Communications Omnibus Reform Act of 1999, relating to copyright licensing and carriage of broadcast signals by satellite carriers, codified in scattered sections of 17 and 47 U.S.C.).

implementation of this directive (including reconsideration), which underscores the importance Congress attached to the swift resolution of this issue.

The broadcasters provide no constructive comments on the Commission's proposals but instead assert generally that the current ILLR model – unimproved and with no further modification – satisfies the statutory standard and that the Commission's discretion to implement a new standard is limited. As DIRECTV discusses in greater detail below, neither the text nor the legislative history of the statute support this assertion. If Congress thought the Commission's existing ILLR model sufficiently accounts for land clutter variations, it would not have included this provision in the statute and it would not have compelled the FCC to issue new rules to correct the model without delay.

DIRECTV generally supports the Commission's proposals to use findings from the Rubinstein study to incorporate data derived from the Land Use and Land Cover ("LULC") database of the United States Geological Survey ("USGS"), and to add clutter loss values to the radio propagation loss predicted by the Commission's basic Longley-Rice 1.2.2 methodology. The proposals reflect Congress' intent that the Commission use the best available data to revise the model promptly. The revisions to the predictive model will help the Commission provide expeditious relief to consumers who do not receive an adequate broadcast signal due to clutter loss. However, as noted in its initial comments, DIRECTV believes that the Commission has not adequately integrated its proposed clutter loss values into the ILLR model. DIRECTV urges the Commission to ensure that the model does not unjustly limit the scenarios in which clutter loss may be taken into account so that consumers who receive a poor over-the-air broadcast signal due to clutter loss will be correctly predicted.

II. THE BROADCASTERS URGE THE COMMISSION TO INTERPRET SECTION 339(C)(3) IN A MANNER THAT WOULD RENDER ITS TEXT MEANINGLESS

The comments submitted by broadcasters in this proceeding suggest that the mandate contained in Section 339(c)(3) has very little meaning. They contend that their copyrights severely limit the Commission's authority to implement Section 339(c)(3), as well as its ability to modify the ILLR.[3] The broadcasters contend further that the Commission's existing ILLR predictive model satisfies the statutory requirement because it already takes into account building structures and land clutter variations,[4] and that Congress intended for the Commission to modify the ILLR *only* if the modification is proven to increase the model's accuracy as measured by actual field test data.[5] The broadcasters attempt to bolster all of these arguments, not with reference to the text of Section 339(c)(3), but with misleading citations to statements in the legislative history of the SHVIA.

The broadcasters' view of Congress' mandate regarding the ILLR, and of the Commission's implementing authority on this point, is incorrect. It is contrary to the text and intent of Section 339(c)(3) and does not provide adequate justification for the Commission merely to perpetuate the existing ILLR model, as the broadcasters propose.[6]

---

3 Joint Comments of the ABC, CBS, FOX, and NBC Television Network Affiliate Stations at 2-3 ("Network Affiliate Comments").

4 Comments of the Association for Maximum Television Service, Inc. and the National Association of Broadcasters ("AMTSI/NAB Comments") at 11-16; Network Affiliate Comments at 4-5.

5 AMTSI/NAB Comments at 1-5; Network Affiliate Comments at 3-4.

6 *See NLRB v. Jones & Laughlin Steel Corp.*, 301 U.S. 1, 30 (1937) (specific statutory provisions prevail over a contrary statement in legislative debate).

In no uncertain terms, Section 339(c)(3) directs the Commission to "take all actions necessary, including reconsideration, to develop and prescribe by rule a point-to-point predictive model for reliably and presumptively determining the ability of individual locations to receive signals in accordance with the signal intensity standard in effect under" the satellite carrier compulsory license provisions of the Copyright Act.[7] Section 339(c)(3) further provides that: "[I]n prescribing such a model, the Commission shall rely on the Individual Location Longley-Rice model set forth . . . in Docket No. 98-201, and ensure that such model takes into account terrain, building structures, and other land cover variations. The Commission shall establish procedures for the continued refinement in the application of the model by the use of additional data as it becomes available."[8]

The text of the SHVIA clearly and unambiguously requires the Commission to take action to improve the current ILLR model. And where the language of the statute is clear, as it is in Section 339(c)(3), no further inquiry is necessary.[9] There is a "strong presumption that the plain language of [a] statute expresses congressional intent."[10] This presumption "is rebutted only in rare and exceptional circumstances, when a contrary legislative intent is clearly expressed."[11] To overcome this presumption, legislative intent to the contrary must be clear and persuasive.

---

7 SHVIA, Section 1008; *see* 17 U.S.C. § 119(d)(10)(A).

8 SHVIA, Section 1008 (to be codified at 47 U.S.C. § 339(c)(3)).

9 *See Burlington N.R.R. Co. v. Oklahoma Tax Comm'n,* 481 U.S. 454, 461 (1987); *Kelly v. Robinson,* 479 U.S. 36, 43 (1986); *Rubin v. United States,* 449 U.S. 424, 439 (1981) ("When we find the terms of a statute unambiguous, judicial inquiry is complete.").

10 *Ardestani v. INS,* 502 U.S. 129, 135 (1991).

11 *Id.* at 135-36.

Contrary to the broadcasters' suggestions, there is no indication in the legislative history of the SHVIA that Congress intended for the Commission to retain its existing ILLR model. There is similarly no indication that Congress intended to limit the Commission's authority to modify the ILLR model based on broadcasters' copyrights. To the contrary, the legislative history forecloses any doubt that Congress intended for the Commission to make changes to the existing predictive model. According to the Conference Committee Report, Section 339(c)(3) "requires the Commission to attempt to increase [the ILLR model's] accuracy further by taking into account not only terrain, as the ILLR model does now, but also land cover variations such as buildings and vegetation."[12] By referring explicitly to the current model and indicating that additional land cover variations should be incorporated into that model, the Conference Committee Report clarifies rather than contradicts the language of Section 339(c)(3).[13] Absent a legislative intent that is clearly to the contrary, the statutory language must be regarded as conclusive.

It is generally presumed that Congress knows the current law when it decides to make statutory changes.[14] In this case, Congress has demonstrated its knowledge of the law, referencing Docket No. 98-201 both in the text of Section 339(c)(3) and in the Conference

---

12 H.R. Conf. Rep. No. 464, 106th Cong., 1st Sess. 104 (1999).

13 To the extent that the Commission finds any contradiction between the Conference Committee Report and the language of Section 339(c)(3), the Commission must apply the statute rather than the Report; as it is the statute, not the report, that was enacted by Congress. *See United States v. Cuomo,* 525 F.2d 1285, 1291 (5th Cir. 1976).

14 *See Erlenbaugh v. United States,* 409 U.S. 239, 244 (1972); *United States v. Trident Seafoods Corp.*, 92 F.3d 855, 862 (9th Cir. 1996) *cert. denied,* 519 U.S. 1109 (1997).

Committee Report. By adopting the text of Section 339(c)(3), Congress sought to initiate a change in the law to make clear that the Commission's authority to refine the ILLR model and "ensure" that it accounted for terrain, building structure and land cover variations was free from debate. To suggest, as the broadcasters do, that Congress thought the existing predictive model adequately incorporated land clutter is to imply that the text of Section 339(c)(3) is mere surplusage – a nonsensical reading of the statute.

The Commission should not permit the broadcasters to reshape the contours of Section 339(c)(3) or to render its directives ineffective. Such a departure from the plain meaning of statutory terms, absent clear and persuasive evidence of legislative intent, is untenable.[15] The plain text of Section 339(c)(3) unambiguously directs the Commission to adopt changes to the existing ILLR model that incorporate land use and land clutter data, and this directive must not be rendered meaningless.[16] DIRECTV therefore urges the Commission to follow the mandate of Section 339(c)(3) as it is written and to modify the ILLR accordingly.

---

15 *See, e.g., West Virginia University Hospitals, Inc. v. Casey,* 111 S. Ct. 1138, 1147 (1991) ("The best evidence of [congressional] purpose is the statutory text adopted by both Houses of Congress and submitted to the President."); *see also United States v. Ron Pair Enterprises, Inc.,* 489 U.S. 235, 241 (1989); *United States v. Turkette,* 452 U.S. 576, 580 (1981); *Ford Motor Credit Co. v. Cenance,* 452 U.S. 155, 158 n.3 (1981); *Consumer Prod. Safety Comm'n v. GTE Sylvania,* 447 U.S. 102, 108 (1980); *Stewart v. National Shopmen Pension Fund,* 730 F.2d 1552, 1561 (D.C. Cir. 1986) ("the best guide to what a statute means is what it says").

16 *See Woodfork v. Marine Cooks and Stewards Union,* 642 F.2d 966, 970-71 (5th Cir. 1981) ("a statute should not be construed in such a way as to render certain provisions superfluous or insignificant"), *quoting Zeigler Coal Co. v. Kleppe,* 536 F.2d 398, 406 (D.C. Cir. 1976).

III. AS MANDATED BY CONGRESS, THE COMMISSION SHOULD REVISE THE ILLR TO INCORPORATE LAND USE AND LAND CLUTTER USING THE BEST AVAILABLE DATA

The broadcasters criticize the studies underlying the Commission's proposed changes to the ILLR model, but make no suggestions for improving the proposal. Instead they urge the Commission to maintain the status quo. As discussed above, however, Section 339(c)(3) does not merely *allow* the Commission to modify the ILLR model, it *compels* such action. The Commission's proposal reflects the intent of Congress and is grounded in reliable data that is accepted by the scientific community. Such data represents the best information currently available and will significantly improve upon the existing model. Incorporation of such data into the existing model is consistent with Congress' intent that the model undergo incremental improvement as new data become available.

A. Use of Rubinstein Model

The broadcasters object generally to the use of the Rubinstein study as a basis for incorporating clutter values into the ILLR and to Rubinstein's use of algorithms derived from the Okumura study to predict signal strength. Because of the flaws they perceive in the Rubenstein data, they argue that the Commission should retain its current form of analysis.[17] While it is true that the Rubinstein study measured clutter in the land mobile radio context and that certain factors present in the study do not exactly replicate the broadcast television scenario, the broadcasters greatly exaggerate the differences between land mobile radio and television signal propagation and dramatically oversimplify the results of the comparison. DIRECTV addresses each of the arguments below.

---

[17] AMTSI/NAB Comments at 11; Network Affiliate Comments at 33.

1. Receiving Antenna Height

Although Rubinstein's study does not indicate the elevation of the test antennas, the broadcasters assume the receiving antennas were between 1.5 and 3 meters above ground.[18] They note that this is substantially lower than the 6- or 9-meter assumed height for household television receiving antennas. While their assumptions regarding the height of Rubinstein's antennas are reasonable, the broadcasters combine two separate aspects of antenna height to obfuscate the issue: height gain for an isolated antenna and antenna height as it relates to surrounding clutter.

The broadcasters correctly assert that because of the difference in height, there is a difference in gain between Rubinstein's test antennas and a television receiving antenna at 6 or 9 meters above ground. The broadcasters, however, mischaracterize the effects of this height-gain. An antenna will exhibit an increase in gain as it is raised above ground no matter what environment surrounds the antenna. But this gain increase is modified by nearby clutter. In fact, *regardless* of the height of the receiving antennas in Rubinstein's study, the application of the Okumura prediction method, in particular, Okumura's antenna height correction factors, would have minimized the effect of height-gain on Rubinstein's determination of clutter losses, thus rendering his clutter loss values independent of the heights of his measurement antennas.

The difference in antenna height also does not substantiate the broadcasters' allegation that Rubinstein's antennas would be more immersed in clutter than a TV antenna located 6 or 9 meters above ground. The type of clutter present in a given area makes this height difference of little relevance. In urban areas, for instance, a 1.5-meter antenna and 9-meter antenna would

---

[18] AMTSI/NAB Comments at 18; Network Affiliate Comments at 9.

each be below the height of building clutter. Similarly, in the evergreen forests of the Pacific Northwest, both antennas would be well below the average tree height.

Okumura's data suggest that doubling the height of an antenna that is in the clear (such as a tall base station antenna) will increase the gain of the antenna by 6 dB. In contrast, doubling the height of a mobile antenna in an urban area typically increases the antenna-gain by only 3 dB because the mobile antenna will always be below the height of nearby rooftops. Assuming an average 15-meter building height for urban areas, a television receive antenna at 6 or 9 meters above ground would similarly be below the typical roof level and would therefore demonstrate less height-gain than the same antenna located in a rural area.

2. Transmitting Antenna Height

The broadcasters generally assert that Rubinstein's data are unsuitable for use in calculating clutter in the broadcast signal path based on their assumptions about the heights of the transmitters used in his study.[19] In particular, the comments submitted by the Network Affiliates contain exaggerated height-gains based on an assumption of an unreasonably low transmit antenna height. Their submission is further distorted by the incorrect application of Hata's height-gain formula.[20] Hata's curve-fit formula was not accurate outside the ranges given in his paper, and it is misleading for the broadcasters to suggest that Hata's formula approximates the increased gain above 200 meters.

---

19 Network Affiliate Comments at 12.

20 Hata's formula was limited to transmit antenna heights of 200 meters and path lengths of 20 kilometers – a fact the broadcasters acknowledge in a footnote. Network Affiliate Comments at 14 n.28.

Finally, although it is stipulated that Rubinstein's study was taken from the land mobile radio context, the transmitters he used much more closely resembled those used for broadcast television than other analogues. Rubinstein's transmitters were located on mountaintops or other high elevation sites so as to avoid analysis problems caused by mid-path Fresnel zone blockage. Furthermore, at the lowest frequency measurement of 162 MHz, Rubinstein would have had to utilize high transmit sites and/or short paths to avoid mid-path Fresnel zone blockage.

3. Antenna Polarization

While Rubinstein used vertically (V) polarized antennas, terrestrial television stations use horizontally (H) polarized antennas. It is true that clutter loss is less for H-polarized signals, however, the broadcasters grossly overstate the significance of this fact.[21] Clutter loss depends both on the type of clutter and the frequency of the signal. Woodlands, for example, attenuate V-polarized signals more than H-polarized signals, and this attenuation would be greater for low-band VHF signals than for high-band signals. However, broadcast television signals suffer depolarization effects as they traverse the signal path; reflection and diffraction, especially in cluttered urban areas, can increase the V-polarized component of the broadcast television signal. Thus, depolarized television signals, to the extent that they become more V-polarized, will suffer the same clutter loss as Rubinstein's V-polarized signals.

---

[21] AMTSI/NAB Comments at 20-21; Network Affiliate Comments at 16.

4. Use of Omnidirectional Antennas

The broadcasters argue that Rubinstein's data is "tainted" by multipath because he used omnidirectional antennas.[22] Depending on the position of the antenna, multipath can either increase or decrease received signal strength. Rubinstein apparently recorded mobile measurements. Although Rubinstein did not indicate how he analyzed his raw measurement data, the most common way to perform such analyses is to take the median value of the mobile run samples. The multipath factor could have effectively been eliminated to the extent that Rubinstein's mobile runs were long enough relative to a wavelength, the sample rate was high enough, and the median signal level for each run was calculated. The broadcasters offer no data at all to suggest that this was not the case.

5. Fresnel Zone Clearance

The broadcasters criticize Rubinstein for not having full Fresnel zone clearances for his measurements and argue that the effect is to raise clutter loss values dramatically.[23] In their criticism, however, the broadcasters fail to distinguish between mid-path clearance and foreground clearance. Instead, the broadcasters assert generally that Rubinstein did not have Fresnel zone clearance. In fact, Rubinstein was likely to have had mid-path Fresnel zone clearance as he assumed. Mid-path Fresnel zone clearance was integral to his analysis. Rubinstein's measurements probably suffered from *foreground* Fresnel zone blockage due to the fact that Rubinstein's receive antennas were not very tall. Rubinstein's use of the Okumura prediction method, however, should account for any foreground losses.

---

22 AMTSI/NAB Comments at 20; Network Affiliate Comments at 16-17.

23 AMTSI/NAB Comments at 21-22; Network Affiliate Comments at 17.

Okumura's measurement data, which formed the basis of his prediction method, was obtained using low-elevation mobile antennas that would have been subject to the same foreground losses as Rubinstein's antennas. Thus, contrary to the broadcasters' arguments, the resulting clutter loss values should be unaffected by Fresnel zone blockage losses.

6. Other Fresnel Zone Issues

The broadcasters greatly oversimplify the effect of shadowing on signal loss.[24] In fact, as DIRECTV presented in its initial comments, the shadowing of a household and the additional signal loss caused by clutter near the household are unrelated except in extraordinary circumstances. Furthermore, the commenters who criticize the proposal based on the shadowing issue and thus advocate the use of the Longley-Rice model fail to address the fact that the Longley-Rice algorithm does not consider Fresnel zone shadowing except in extreme cases.

Indeed, as DIRECTV set forth in its initial comments, the Commission has unnecessarily limited the situations in which clutter loss may be taken into account. The Commission should not ignore Rubinstein's clutter loss results for shadowed locations. As Echostar noted in its comments, in many areas in the U.S., a majority of viewers are located in areas not having Fresnel clearance.[25] It is imperative that the revised ILLR model include Fresnel Zone losses, including those for terrain obstacles that intrude into the Fresnel zone below the direct ray. This simple calculation must be included as a refinement to the model, and not as a trigger for clutter loss consideration.

---

24 AMTSI/NAB Comments at 22; Network Affiliate Comments at 17.

25 Comments of Echostar Satellite Corporation at 4-5 ("Echostar Comments"). Echostar has commissioned a study on Fresnel zone clearance. *Id.*

B. Use of LULC Database And Proposed Categories

As noted in its initial comments, DIRECTV supports the Commission's proposal to incorporate the LULC database into the ILLR model and to reorganize the LULC categories into 10 environmental classes in a manner that is relevant to the propagation of broadcast signals.[26] Indeed, the Commission's proposed classifications have the support of several of the commenters, many of whom noted that these classifications have been accepted in the scientific community as a standard means of reorganizing the LULC databases for use in signal propagation.[27]

Section 339(c)(3) compels the Commission to incorporate terrain, building structures and other land cover variations into the ILLR model. While the broadcasters object to the use of data they argue is outdated and coarse, it is clear that the LULC database is currently the best available source of such data. Under no circumstances should the Commission wait for the data from Landsat 7 to make changes to its predictive model. As discussed above in Section II, the statute requires that the Commission "take all actions necessary, including any reconsideration" to develop and implement a new predictive model. Congress placed a 180-day deadline on such action. Surely, this deadline does not reflect an intention to reach the result the broadcasters advocate.

---

[26] DIRECTV Comments at 4-7.

[27] Comments of EDX Engineering, Inc. at 3-4; Comments of Radiosoft at 1-2; Comments of Richard L. Biby, PE at 7-9 ("Biby Comments"). One commenter proposed that the Commission's TASO measurements be re-analyzed in order to determine clutter factors. Comments of the Association of Federal Communications Consulting Engineers at 3 ("AFCCE Comments"). Because the exact locations of the measurements used in the study are unavailable, however, it would be impossible to correlate the data in the TASO study with the proposed LULC changes.

When the Landsat 7 data are available, the rules the Commission adopts in this proceeding will permit parties to initiate a reexamination of the model, based on compelling scientific evidence.

C. Longley Urban Factor Model

Several commenters discuss the applicability of the Longley Urban Factor (UF) to the revised ILLR predictive model. The Commission appears to have used the Longley UF, at least in part, to adjust the TIA TSB-88A values. Richard Biby provides a formula and FORTRAN source listing which implements a modified Longley UF that is based on his considerable experience with propagation issues.[28] DIRECTV engineers have compiled and run the Biby UF program ("LUC") in order to confirm that it is generally in agreement with Longley's results. In fact, runs of LUC to duplicate Longley's table of values demonstrate that accuracy to within approximately 0.6 dB. Biby's program can be used to extrapolate Longley's UF to low-band frequencies. Both Longley's and Biby's UF formulas are based on distance and will show decreasing clutter losses at increasing distances from the transmitter. In contrast, the Commission's proposed clutter loss values are independent of distance.

DIRECTV believes that both approaches have value. In the interests of timely implementation of Congress' directive, DIRECTV urges the Commission to adopt the clutter loss values proposed in the Notice and initiate further study of Biby's formulas so that they may be incorporated at a later time using the procedures the Commission adopts in this proceeding.

---

[28] Biby Comments at 11.

IV. ADDITIONAL ISSUES

A. Procedural Framework For Modification Of ILLR Model

DIRECTV maintains that the Commission should adopt informal rulemaking procedures for continued refinement of the ILLR model and should provide for expeditious treatment of petitions for rulemaking supported by high-quality engineering studies. In the absence of comments addressing this issue, DIRECTV reiterates that such procedures should be governed by Section 553 of the Administrative Procedures Act.[29] DIRECTV also urges the Commission to adopt expedited time frames as proposed in its initial comments in this proceeding.[30]

B. Neutral Testing Entity

DIRECTV maintains that the Commission should appoint a working group comprised of representatives from the SBCA and NAB, which would be responsible for identifying, if possible, one or more qualified consulting engineers in each DMA that could fulfill the statutory requirement of a neutral testing entity. Several commenters suggest that software is available that would allow several different entities to make point-to-point measurements in an impartial manner.[31] DIRECTV believes qualification criteria are integral to this process and supports the

---

29 5 U.S.C. § 553.

30 DIRECTV Comments at 9 (urging the Commission to place such petitions on 10-day/5-day comment and reply cycle with an order acting upon proposed refinements to the ILLR model released no later than 45 days from the date of filing of the petition for rulemaking).

31 AFCCE Comments at 4; Comments of Communications Technologies, Inc. at 2; Comments of Radiosoft at 2.

effort undertaken by Echostar and the SBCA to develop a proposed list of criteria for designated testers.[32]

DIRECTV also believes that test results should be extended to neighboring households in order to minimize the burdens and expenses associated with conducting such tests. For the same reason, DIRECTV strongly agrees with Echostar that the Commission should allow a test by a satellite provider to satisfy the statutory requirement in cases where the satellite provider conducts a test to determine eligibility.[33]

C. Insufficiency of Grade B Standard

Several commenters urge the Commission to adopt a new signal quality standard that would incorporate multipath, ghosting and urban noise.[34] Commenters suggest that measurements of these types of interference must be correlated to clutter variables and thereby integrated into the revised predictive model.[35] DIRECTV agrees that the Commission should investigate these issues.

D. Error Codes

Despite the broadcasters' arguments that the Commission cannot change its previous policies,[36] it is clearly within the Commission's authority to adopt a policy pursuant to Section 339(c)(3) to presume that error codes indicate that a household is unserved. The broadcasters

---

32 Echostar Comments at 7-8; Comments of the Satellite Broadcasting and Communications Association at 3-4 ("SBCA Comments").

33 Echostar Comments at 8-9.

34 Biby Comments at 6; Echostar Comments at 5-6; SBCA Comments at 3; *see also* Comments of the National Rural Telecommunications Cooperative at 9-10 (arguing that the "Grade B" signal intensity standard is outdated).

35 Biby Comments at 13-14; Echostar Comments at 3-7.

36 AMTSI/NAB Comments at 20-28; Network Affiliate Comments at 34-38.

argue that this proposal departs from the ILLR as endorsed in the Commission's Report and Order regarding the measurement and prediction of the strength of television signals for purposes of the Satellite Home Viewer Act, the predecessor statute to the SHVIA.[37] They advocate the opposite presumption – that error codes should result in a presumption of service.[38]

Since the issuance of the Report and Order in which the Commission made the statements quoted by the broadcasters, *Congress has changed the underlying statute*. The Commission's departure from past policy or practice can be explained by this simple fact. Here, the Commission is not "casually ignoring" its prior policy and reasoning,[39] it is proposing to change the policy deliberately in response to the intent of Congress as expressed in Section 339(c)(3). As explained in Section II above, Section 339(c)(3) requires the Commission to establish a point-to-point predictive model for reliably and presumptively determining whether individual locations receive an over-the-air television broadcast signal of "Grade B" intensity. A change in the presumption concerning error codes is ancillary to the Commission's proposed modification of the ILLR and its proposed use of the Rubinstein data. Clearly, the Commission's proposed change in policy is deliberate and consistent with its mandate in Section 339(c)(3).

---

37 *In the Matter of Satellite Delivery of Network Signals to Unserved Households for Purposes of the Satellite Home Viewer Act, Part 73 Definitions and Measurement of Signals of Grade B Intensity,* 14 FCC Rcd 2654 (1999).

38 AMTSI/NAB Comments at 28-30; Network Affiliate Comments at 36-37.

39 *Greater Boston Television v. FCC*, 444 F.2d 841, 852 (D.C. Cir. 1970), *cert. denied,* 403 U.S. 923 (1971).

V. CONCLUSION

The broadcasters have urged the Commission to wait for additional data before making any modifications to the ILLR predictive model. In support of this argument, they have greatly exaggerated perceived flaws in the Rubinstein study. The approach the broadcasters advocate, however, would plainly conflict with the text of Section 339(c)(3) and Congress' intent that the Commission modify the model without delay so that consumers who are unable to receive adequate over-the-air television signals will benefit from the SHVIA. While not perfect, the proposed modifications are consistent with Congress' mandate and are grounded in scientifically reliable methods and data. Should new findings later eclipse the data on which the Commission's proposals are based, procedures will be in place so that these may be incorporated into the predictive model. For the foregoing reasons, DIRECTV urges the Commission to adopt rules modifying the ILLR that are consistent with the comments set forth above.

Respectfully submitted,

DIRECTV, Inc.

By: 

Gary M. Epstein
James H. Barker
Kimberly S. Reindl
LATHAM & WATKINS
1001 Pennsylvania Ave., NW
Suite 1300
Washington, D.C. 20004-2505
(202) 637-2200

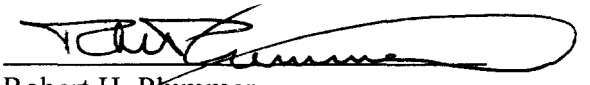
March 14, 2000

DECLARATION OF ROBERT H. PLUMMER

I, Robert H. Plummer, hereby declare as follows:

1. I am employed with DIRECTV, Inc. as Senior Director, Advanced Technology. I am an engineer by training and am familiar with the technical and interference characteristics of DIRECTV's Direct Broadcast Satellite system, the technical requirements of the Commission's rules, and the interference and technical issues referenced in the foregoing filing.

2. I have reviewed the foregoing filing from a technical perspective, and the information found therein is true and accurate to the best of my knowledge, information and belief.



Robert H. Plummer
Senior Director, Advanced Technology
DIRECTV, Inc.

March 14, 2000